

# ICLEI-NOAA Climate Resilient Communities (CRC) Project for CCAP-Urban Leaders Initiative (ULI) Webinar

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## ***Mitigation***

- Addresses **causes**
  - Reducing GHGs
  - Improving technology
- Costs now, benefits to later generations
- Local costs, global benefits
- Must act early despite uncertainty

## ***Adaptation***

- Addresses **effects**
  - Changes in temp & precip
  - Resulting stresses
- Costs when action taken, benefits soon after
- Local costs, often relatively local benefits
- May act when uncertainty reduced

# Supporting Adaptation

What are we doing as a science program to better understand and support your capacity to adapt to your changing climate conditions?

- Operational challenges of higher resolution; improved predictability
- Practical challenges of gaining a better understanding of the effects of concern at local and regional levels



# Importance of local government in addressing climate change

- Climate change is a global scale issue, ***but the impacts are local.*** Many local resource-based planning activities potentially affected by climate change
- Local governments have significant impact on long-term community development and hazard mitigation; ***can influence degree of vulnerability to impacts***
- Policy innovation most often occurs at the state and local level. Planning allows for innovation rather than waiting for prescriptive fixes.

# NOAA GOALS

- Protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management
- Understand climate variability and change to enhance society's ability to plan and respond
  - Serve society's needs for weather and water information
  - Support the nation's commerce with information for safe, efficient, and environmentally sound transportation
  - Provide critical support for NOAA's mission





# NOAA CLIMATE GOAL

UNDERSTAND CLIMATE VARIABILITY AND CHANGE TO  
ENHANCE SOCIETY'S ABILITY TO PLAN AND RESPOND

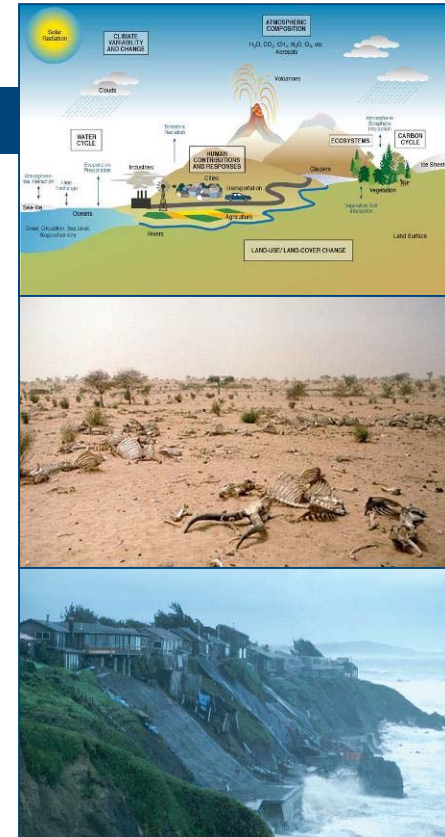
## Matrix Programs

### OUTCOMES

- A predictive understanding of the global climate system on time scales of weeks to decades with quantified uncertainties sufficient for making informed and reasoned decisions
- Climate-sensitive sectors and the climate-literate public effectively incorporating NOAA's climate products into their plans and decisions

**RDS** =

- NOAA Research: Climate Assessments and Services Division (CASD)
- +
- National Weather Service: Climate Services Division (CSD)



PROGRAMS

Observations &  
Analysis

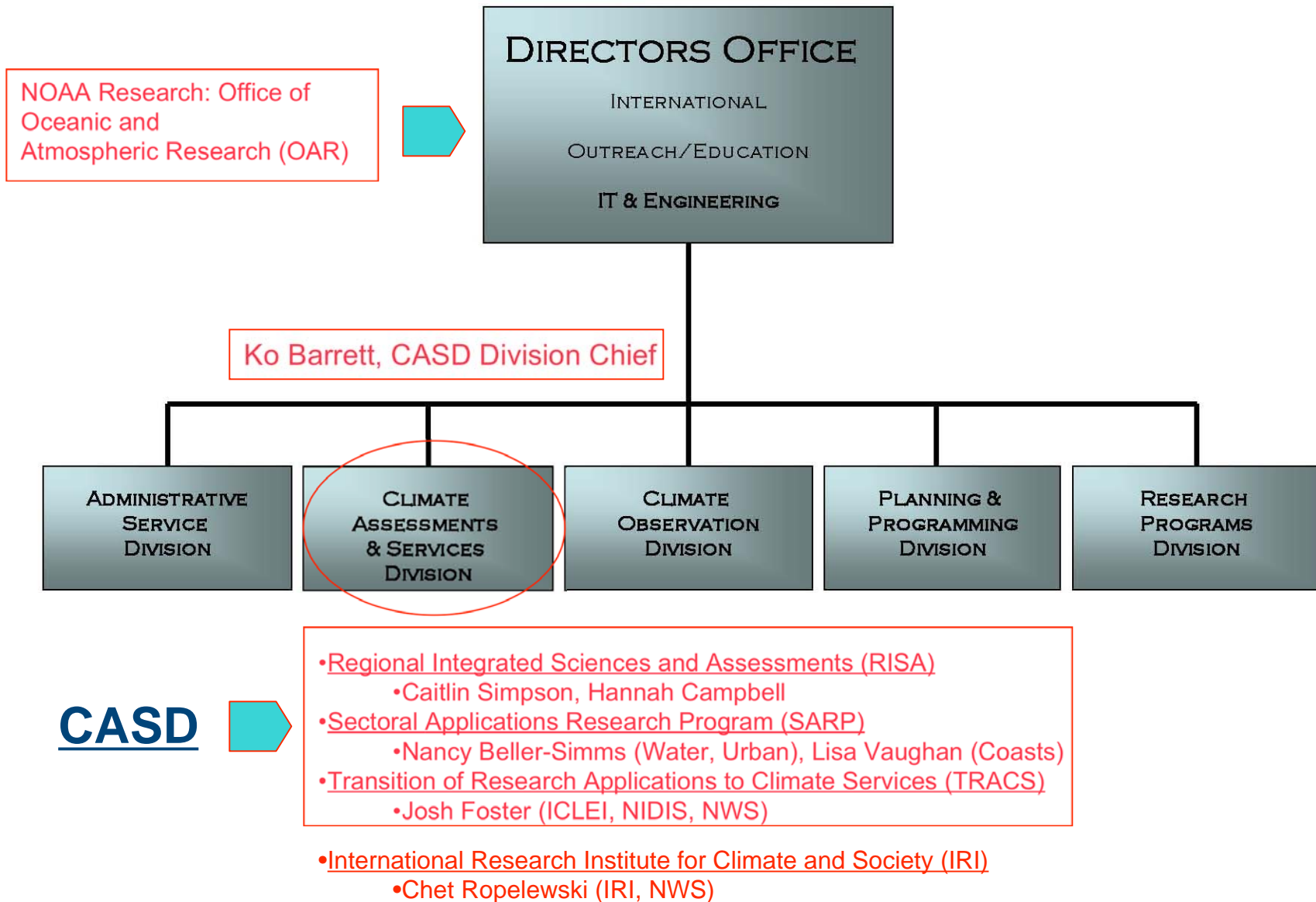
Climate  
Forcing

Predictions &  
Projections

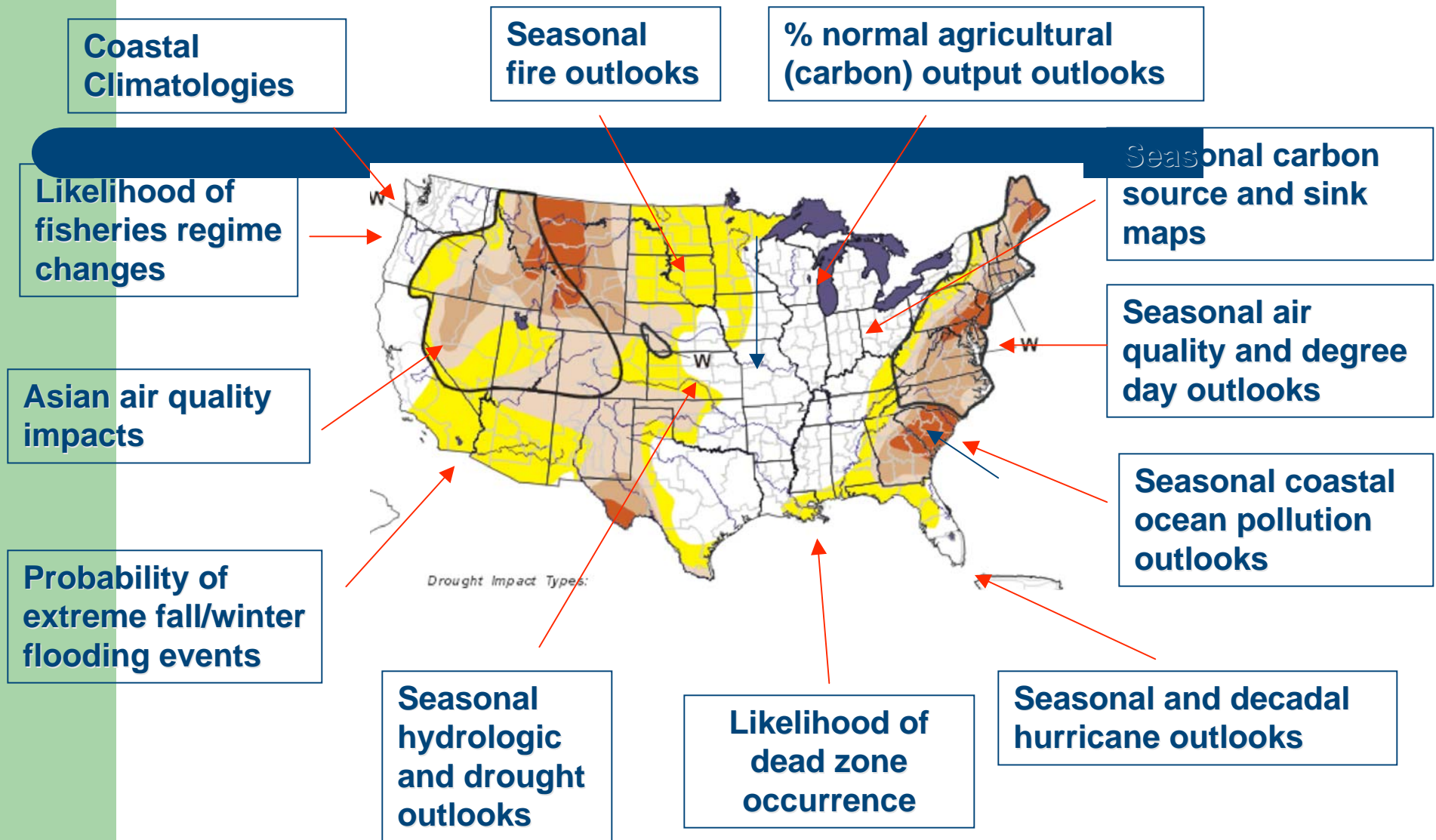
Climate &  
Ecosystems

Regional  
Decision Support  
**RDS**

# NOAA CLIMATE PROGRAM OFFICE



# Prototype Climate Information Products by 2012





# NOAA Sectoral Applications Research Program (SARP)

## Among FY '07 SARP activities expected:

- Partnerships with resource management entities (NOAA and non-NOAA)
- Stakeholder workshops
- Methodology and tool development
- Training programs
- Competitive grants



## Sectors to be addressed in FY '07 include:

Coastal Resources

Water Resources

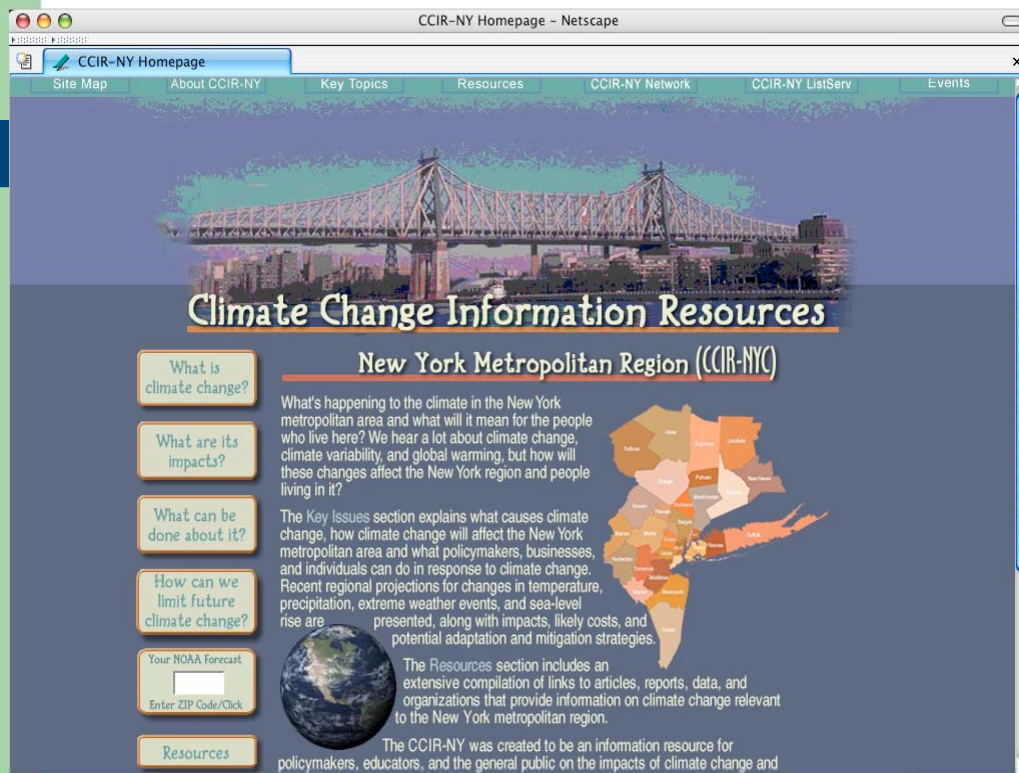
Urban

Health

[www.climate.noaa.gov/cpo\\_pa/sarp/](http://www.climate.noaa.gov/cpo_pa/sarp/)

### Problem - New York City (see notes for description of website):

- Climate variability and climate change have near and long-term implications for decision-makers in the NYC metropolitan region.
- Little usable information is accessible on climate variability and climate change to decision-makers in the region.



### Anticipated Users:

City, municipal & county planners

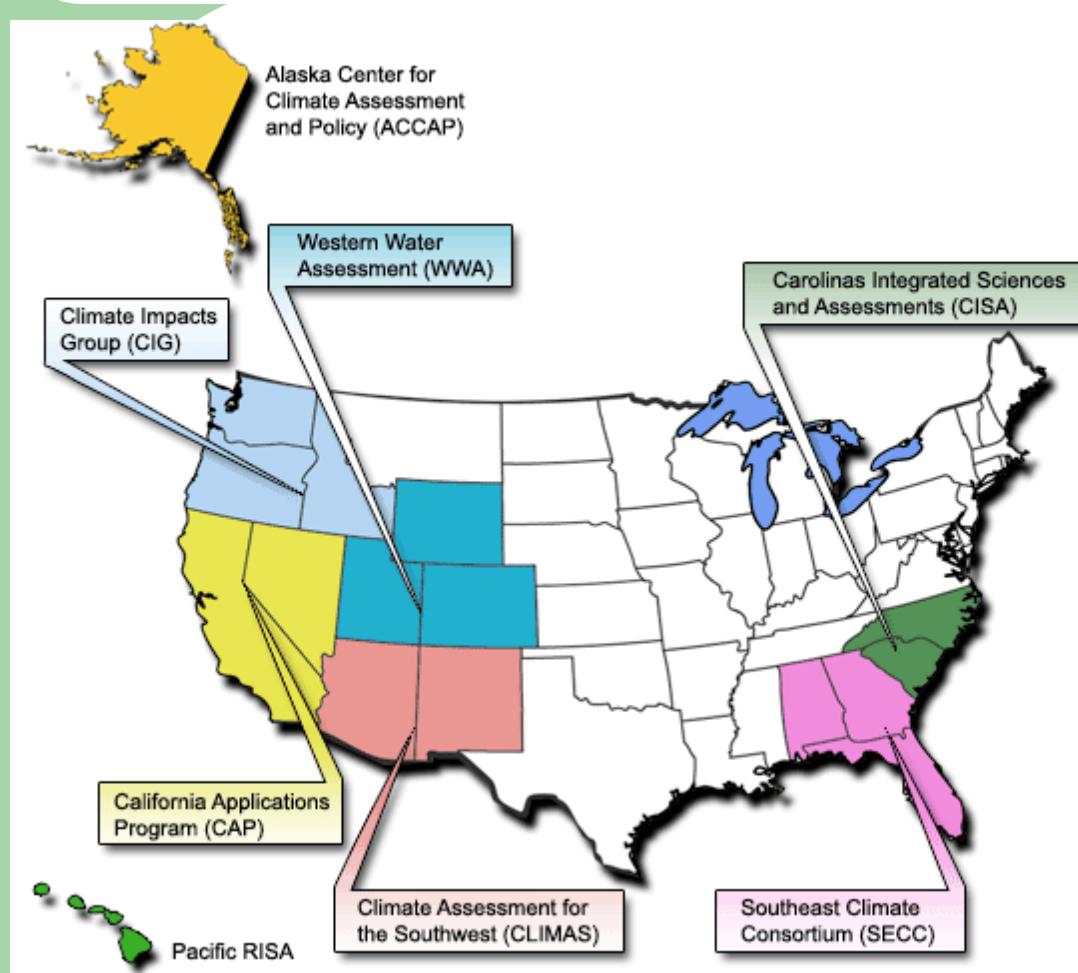
- Natural resource managers (e.g. National Park Service, Army Corps)
- Transportation Managers (Port Authority of NY & NJ)
- Water & waste managers
- Educators & citizens

### Solution (Climate Change Information Resources-CCIR):

- Convened policy-makers, managers, and other decision-makers in the NYC metro region to understand their information needs
- Built a web site to begin to provide the types of climate change information needed by urban decision-makers (<http://ccir.ciesin.columbia.edu/nyc>)

## Regional Integrated Sciences and Assessments (RISA):

[www.climate.noaa.gov/cpo\\_pa/risa](http://www.climate.noaa.gov/cpo_pa/risa)



- NOAA supports **university-based teams across the U.S.** to analyze how climate impacts key sectors within a region and how climate information could help with resource management and planning within that region.

- RISAs create **strong university partnerships with federal, state, and local stakeholders** within a region.

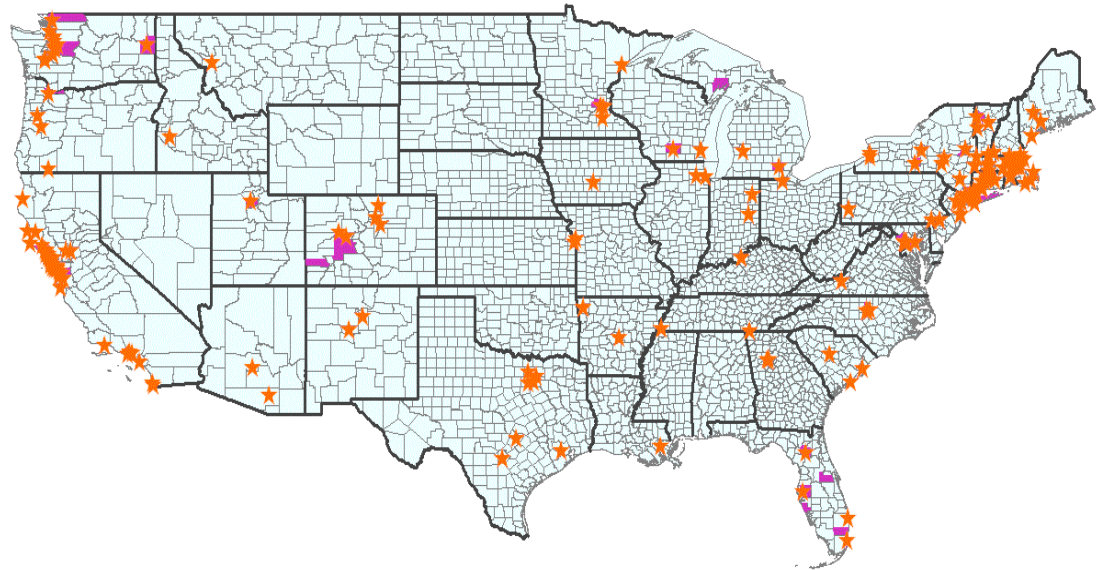
- Example topics covered include: **Agriculture, Wildland Fire, Water Resources, Drought Planning, Fisheries, Public Health.**



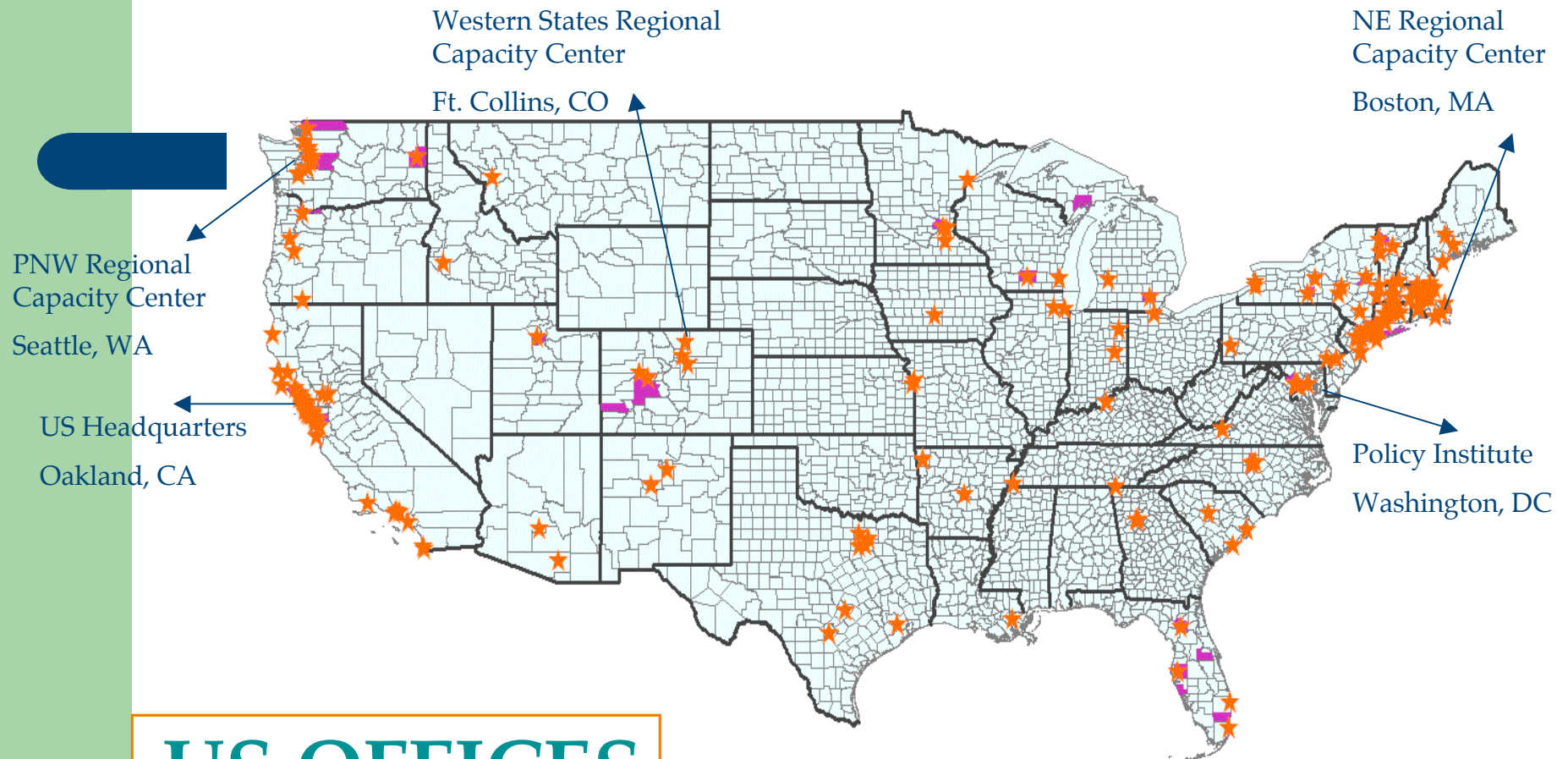
# ICLEI: Cities for Climate Protection (CCP)

Provides a Policy Framework & Technical Know-how for  
Creating Local Climate Protection Plans

- Largest ICLEI program
- Over 700 cities and counties worldwide
- 253 participants in U.S. = Representing 67 million Americans



# ICLEI – Local Governments for Sustainability



US OFFICES



## What does it mean – Cities in Action?

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The **Climate Resilient Communities** (CRC) program is a pilot program sponsored by funding through the National Oceanic and Atmospheric Administration.

## What does it mean – Cities in Action?

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**Climate Resilient Communities** is a network designed to help local governments develop their capacity to identify and reduce vulnerabilities from the threat of climate change.

In the next 20 years, rising global temperatures will impact the way cities manage land use, energy use, flood control, water usage, disaster planning, and other critical operations.



# Climate Resilient Communities (CRC)

## Provides a Community Adaptation Strategy for Regional Climate Impacts

- Link local governments with NOAA RISA offices to available climate science
- Identify opportunities for increasing resiliency
- Prioritize and Develop Action Plan
- Resources: Climate Adaptation Guide

## ICLEI's Pilot Program Commits Cities to:

- Create a CRC Team including internal staff, NOAA RISA climate scientists, and ICLEI staff

- Assess climate change vulnerabilities using regionally-specific climate science
- Determine community goals and targets for long-term climate resiliency
- Allocate appropriate time and resources needed to complete the milestones (timeline depends on the size and complexity of a city, the availability of data, staff and resources available)

# Climate Resilient Communities

## The Five Milestones



1. **Study and assess climate resilience**: Collect climate and weather information about your community to determine whether it is structurally sound or if there are vulnerabilities.
2. **Set goals and prioritize**: Develop a list of goals and targets, determine which should be addressed first, then get commitment from stakeholders and staff to carry them through.
3. **Develop an action plan**: Write a concise plan that describes the actions and policies that will be carried out, including information about timing, financing and responsible parties.
4. **Implement the action plan**
5. **Monitor efforts and re-evaluate your plan**: Note results and highlight accomplishments. Take stock of what still needs to be done and start over!



## **Sectors evaluated include:**

- **Hydrology and water resources**
- **Agriculture**
- **Food Security**
- **Biodiversity/endangered species**
- **Forests**
- **Recreation**
- **Energy**
- **Transportation**
- **Community Infrastructure**
- **Business**
- **Health (heat, diseases, insects, wildfires, air quality)**
- **Cultural and Historical Heritage**

## Examples of CRC Cities in Action

- Keene, New Hampshire = **Flooding**
  - Strengthened stormwater management plans
- Anchorage, Alaska = **Bark Beetle Infestation**
  - Enhanced wildfire mitigation program
- Fort Collins, CO = **Drought**
  - Improved water conservation programs
- King County, WA = **Threat to Fisheries**
  - Municipal Climate Adaptation Guidebook